## REPORT DOCUMENTATION PAGE Form Approved OMB No. 0704-0188 Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed and, completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information including suggestions for reducing this burden to Washington Headquarters Services, Directorate for information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302 and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington, DC, 20503 3. REPORT TYPE AND DATES COVERED 1. AGENCY USE ONLY (Leave blank) 2. REPORT DATE Technical Report September 30, 1999 4.TITLE AND SUBTITLE 5. FUNDING NUMBERS New Macrocyclic Polyamines Containing Two Dansylamidoethyl Side Arms N00014-98-1-0485 98PR05020-00 6. AUTHOR(S) G.-P. Xue, J.S. Bradshaw, J.A. Chiara, P.B. Savage, K.E. Krakowiak, and R.M. Izatt 8. PERFORMING ORGANIZATION REPORT NUMBER 7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Department of Chemistry and Biochemistry Brigham Young University Technical Report No. 11 Provo, UT 84602 9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) . SPONSORING/MONITORING AGENCY REPORT NUMBER Dr. Kelvin Higa (Program Director) Office of Naval Research 800 No. Ouincy Street Arlington, VA 22217-5000 1. SUPPLEMENTARY NOTES 12a. DISTRIBUTION/AVAILABILITY STATEMENT 12b. DISTRIBUTION CODE Approved for public release; distribution unlimited 13. ABSTRACT (Maximum 200 words) Five new macrocyclic polyamine fluorophores containing two dansylamidoethyl side arms (3a-3e) have been prepared. As shown in Scheme 1, the appropriate macrocyclic polyamine (1a-1e) was treated with N-dansylaziridine in acetonitrile to form 3a-3e. The yields of the new fluorophores are given in the scheme. 19991004 327 14. SUBJECT TERMS 15. NUMBER OF PAGES 16. PRICE CODE NA 17. SECURITY CLASSIFICATION OF REPORT SECURITY CLASSIFICATION OF THIS PAGE SECURITY CLASSIFICATION 20. LIMITATION OF ABSTRACT OF ABSTRACT Unlimited Unclassified Unclassified Unclassified

## OFFICE OF NAVAL RESEARCH

Grant N00014-98-1-0485

Technical Report No. 11

## New Macrocyclic Polyamines Containing Two Dansylamidoethyl Side Arms

by

G.-P. Xue, J.S. Bradshaw, J.A. Chiara, P.B. Savage, K.E. Krakowiak, and R.M. Izatt

Department of Chemistry and Biochemistry Brigham Young University, Provo, UT 84602-4678

September 30, 1999

Reproduction in whole or in part is permitted for any purpose of the United States Government

This document has been approved for public release and sale; its distribution is unlimited

## Scheme 1. Syntheses of Macrocyclic Polyamines Containing Two Dansylamidoethyl Side Arms

**3a-3b** are the corresponding compounds where each H of **1a-1e** has been replaced by the dansylamidoethyl group.

Yields and melting points of products **3a - 3e** are as follows: **3a**, 88%, 158-160°C; **3b**, 91%, 194-195°C; **3c**, 90%, 204-205°C; **3d** 85%, 64-65°C; **3e**, 82%, 60-61°C.